

#3/A
11/13/02

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Gu, Allman
Serial Number: 09/878,820
Filed: 2001.06.11
Title: Plasma Treatment System
Examiner: DuyVu n Deo
Group Art Unit: 1765
Attorney Docket: 01-096

AMENDMENT A

Box Non-Fee Amendment
Assistant Commissioner for Patents
Washington DC 20231

Via Fax at 1.703.872.9310

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OFFICIAL

Sir:

In response to the office action dated 2002.08.12, please amend the above-referenced application as follows:

IN THE CLAIMS

1. (amended) A process for forming a conductive via in an integrated circuit structure, where the integrated circuit structure includes a first dielectric layer overlying a first conductive layer, the process comprising:
- (a) forming a via cavity in the first dielectric layer, the via cavity exposing the first conductive layer;
 - (b) etching the via cavity with a hydrogen-containing plasma;
 - (c) forming a liner layer in the via cavity;
 - (d) exposing the liner layer to an isotropic plasma of hydrogen and nitrogen ions, thereby densifying the liner layer, including sidewalls of the liner layer, and
 - (e) forming a second conductive layer adjacent the liner layer in the via cavity, the second conductive layer substantially filling the via cavity to form the conductive via.

Please cancel claim 6 without prejudice or disclaimer.